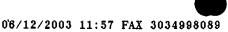


- (Currently amended): A recombinant porcine adenovirus capable of expressing
 heterologous DNA of interest, said DNA of interest being stably integrated into an appropriate site of said recombinant porcine adenovirus genome.
- (Currently amended): A recombinant vector including a recombinant porcine adenovirus stably incorporating, and capable of expressing <u>heterologous</u> DNA of interest.
- 3. (Canceled)
- 4. (Previously amended): A recombinant vector as claimed in claim 2 wherein said recombinant porcine adenovirus includes a live porcine adenovirus having virion structural proteins unchanged from those in a native porcine adenovirus from which said recombinant porcine adenovirus is derived.

#1

- 5-24. (Canceled)
- 25. (Previously amended): A recombinant vector as claimed in claim 2 wherein said recombinant porcine adenovirus is selected from the group consisting of scrotypes 3 and 4.
- 26. (Currently amended): A recombinant vector as claimed in claim 2 wherein <u>said</u> <u>heterologous</u> DNA of interest is stably integrated into the non-essential regions of the porcine adenovirus genome.
- 27. (Currently amended): A recombinant vector as claimed in claim 2 wherein <u>said</u>
 heterologous DNA of interest is stably integrated into the right hand end of the genome.
- 28. (Currently amended): A recombinant vector as claimed in claim 27 wherein <u>said</u>

 <u>heterologous</u> DNA of interest is stably integrated into the right hand end of the genome
 at map units 97 to 99.5.
- 29. (Currently amended): A recombinant vector as claimed in claim 2 wherein <u>said</u> <u>heterologous</u> DNA of interest is stably integrated into the E3 region of the genome.



- (Currently amended): A recombinant vector as claimed in claim 29 wherein said 30. heterologous DNA of interest is stably integrated into the E3 region of the genome at map units 81-84.
- (Previously amended): A method of producing a recombinant porcine adenovirus vector 31. for use as a vaccine including inserting into a non-essential region of a porcine adenovirus genome, at least one heterologous nucleotide sequence in association with an effective promoter sequence.
- (Original): A method as claimed in claim 31 wherein prior to insertion of said 32. heterologous nucleotide sequence, a restriction enzyme site is inserted into said nonessential region of said porcine adenovirus genome.

33-38. (Cancelled)

- (Previously amended): A method of vaccination of pigs against disease including 39. administering to said pigs a first recombinant porcine adenovirus vector stably incorporating, and capable of expression of a heterologous nucleotide sequence encoding at least one antigenic determinant of said disease against which vaccination is desired.
- (Previously amended): A method as claimed in claim 39 including administering to said 40. pig a second porcine adenovirus vector including at least one heterologous nucleotide sequence which differs from a heterologous nucleotide sequence incorporated in said first recombinant porcine adenovirus vector.
- (Original): A method as claimed in claim 40 wherein said second porcine adenovirus 41. vector comprises a serotype different to that of said first porcine adenovirus vector.
- 42. (Previously amended): A method as claimed in claim 40 wherein said second porcine adenovirus vector incorporates, and is capable of expression of at least one heterologous nucleotide sequence encoding an immuno-potentiating molecule.
- (Canceled.) 43



- (Currently amended): A recombinant vector as claimed in claim 43 42 wherein said 44. heterologous nucleotide sequence is capable of expression as an antigenic polypeptide.
- (Previously added): A recombinant vector as claimed in claim 44 wherein said 45. heterologous nucleotide sequence is capable of expression as an immuno-potentiating molecule.
- (Previously added): A recombinant vector as claimed in claim 44 wherein said 46. heterologous nucleotide sequence encodes antigenic determinants of infectious agents causing intestinal diseases in pigs.
- (Previously added): A recombinant vector as claimed in claim 44 wherein said 47. heterologous nucleotide sequence encodes antigenic determinants of infectious agents causing respiratory diseases in pigs.
- (Previously added): A recombinant vector as claimed in claim 44 wherein said 48. heterologous nucleotide sequence encodes an antigenic determinant of pseudorabies virus (Aujeszky's disease virus).
- 49. (Previously added): A recombinant vector as claimed in claim 44 wherein said heterologous nucleotide sequence encodes an antigenic determinant of glycoprotein D of pseudorabies virus.
- (Previously added): A recombinant vector as claimed in claim 44 wherein said 50. heterologous nucleotide sequence encodes an antigenic determinant of porcine respiratory and reproductive syndrome virus (PRRSV).
- (Previously added): A recombinant vector as claimed in claim 44 wherein said 51. heterologous nucleotide sequence encodes an antigenic determinant of Hog cholera virus.
- 52. (Previously added): A recombinant vector as claimed in claim 44 wherein said heterologous nucleotide sequence encodes an antigenic determinant of porcine parvovirus.

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 - (Previously added): A recombinant vector as claimed in claim 44 wherein said 53. heterologous nucleotide sequence encodes an antigenic determinant of porcine coronavirus.
 - (Previously added): A recombinant vector as claimed in claim 44 wherein said 54. heterologous nucleotide sequence encodes an antigenic determinant of porcine rotavirus.
 - (Previously added): A recombinant vector as claimed in claim 44 wherein said 55. heterologous nucleotide sequence encodes an antigenic determinant of porcine parainfluenza virus.
 - (Previously added): A recombinant vector as claimed in claim 44 wherein said 56. heterologous nucleotide sequence encodes an antigenic determinant of Mycoplasma hyopneumonia.
 - (Previously added): A recombinant vector as claimed in claim 44 wherein said 57. heterologous nucleotide sequence encodes FLT-3 ligand.
 - (Previously added): A recombinant vector as claimed in claim 44 wherein said 58. heterologous nucleotide sequence encodes interleukin-3 (IL-3).
 - (Previously added): A recombinant vector as claimed in claim 44 wherein said . **5**9. 1 heterologous nucleotide sequence encodes porcine interleukin-4 (IL-4).
 - (Previously added): A recombinant vector as claimed in claim 44 wherein said 60. heterologous nucleotide sequence encodes gamma interferon.
 - 61. (Previously added): A recombinant vector as claimed in claim 44 wherein said heterologous nucleotide sequence encodes porcine granulocyte macrophage colony stimulating factor (GM-CSF).
 - 62. (Previously added): A recombinant vector as claimed in claim 44 wherein said heterologous nucleotide sequence encodes porcine granulocyte colony stimulating factor (G-CSF).